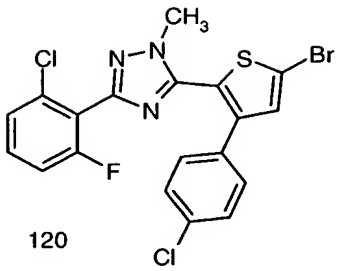
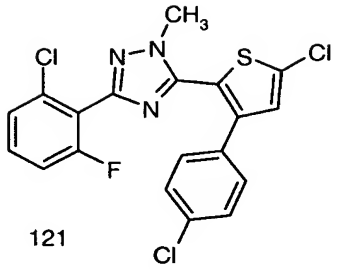
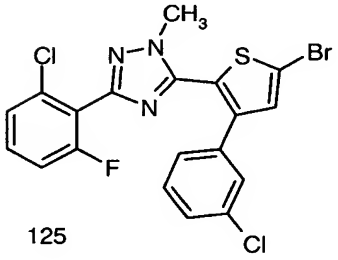


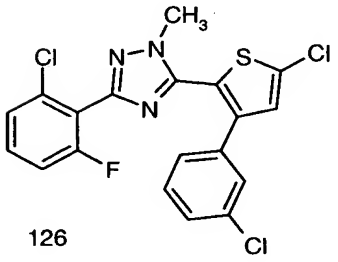
120



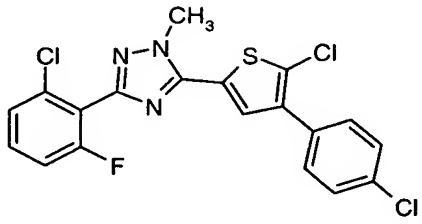
121



125



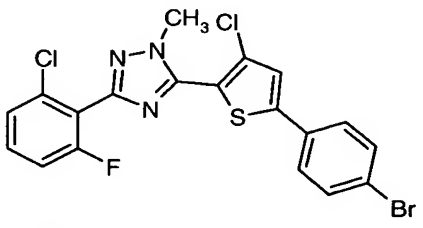
126



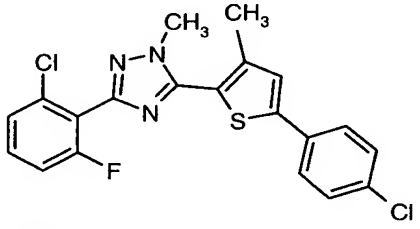
131

The compounds of Pechacek *et al.* cited by the Examiner are either 2,3-isomers of thiophene (120, 121, 125 and 126) or 2,4-isomers of thiophene (131) rather than the 2,5-isomers of thiophene claimed in the present application.

The eighteenth and twentieth compounds of Table 1 of the present application are the most similar compounds of the present application compared to compounds 120, 121, 125, 126 and 131 of Pechacek *et al.*



18



20

The insecticidal activities of the compounds, as disclosed in Pechacek *et al.* and the present application are summarized in Table 1.

Table 1

Compound		CA 50ppm	SM 2.5ppm	WF 200ppm	TBW 400ppm	BAW 400ppm	CL 400ppm
120	Pechacek et al.	<51%					
121	Pechacek et al.	<51%					
125	Pechacek et al.	<51%					
126	Pechacek et al.	<51%					
131	Pechacek et al.	<51%					
18	present invention	80-89%	90-100%	0%	90-100%	90-100%	90-100%
20	present invention	90-100%	90-100%	60-69%	60-69%	90-100%	90-100%

Pechacek *et al.* discloses only marginal activity (<51% control) for the 2,3-isomers and 2,4-isomers of thiophene against a single sucking pest, cotton aphids, at a dose rate of 50 ppm. The 2,5-isomers of thiophene of the present invention, on the other hand, control cotton aphids to the extent of 80-100% at the same dose rate as well as control other sucking pests such as spider mite and white fly. More importantly, however, the 2,5-isomers of thiophene unexpectedly control chewing pests like tobacco budworm, beet armyworm and cabbage looper. Pechacek *et al.* discloses solely the control of sucking insects and does not mention or suggest the control of chewing insects like lepidoptera. Furthermore, one of ordinary skill in the art does not expect an insecticide useful against sucking pests to be useful against chewing pests. Because the 2,5-isomers of thiophene of the present invention show superior activity against sucking insects over the 2,3-isomers and 2,4-isomers of thiophene disclosed in Pechacek *et al.* and because the 2,5-isomers of thiophene of the present invention show unexpected control over chewing insects not disclosed or suggested in Pechacek *et al.*, the present claims fulfill the requirements of 35 U.S.C. §103(a).

On the basis of the above remarks, reconsideration of this continued examination application and its early allowance are requested.

Respectfully submitted,

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July 6, 2005